




Please feel free to contact the undersigned attorney with any questions.

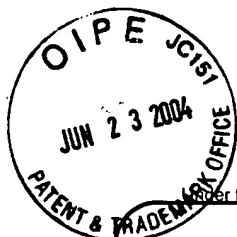
Respectfully submitted,



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Date: June 17, 2004

John W. Olivo, Jr.  
Reg. No. 35,634  
WARD & OLIVO  
382 Springfield Avenue  
Suite 300  
Summit, NJ 07901  
(908) 277-3333



PTO/SB/21 (02-04)

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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	09/769,134	
	Filing Date	1/25/2001	
	First Named Inventor	Spencer A. Rathus et al.	
	Art Unit	2876	
	Examiner Name	Kim, Ahshik	
Total Number of Pages in This Submission	12	Attorney Docket Number	660-015

**ENCLOSURES (Check all that apply)**

<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):  Return Receipt Postcard
<b>Remarks</b>		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

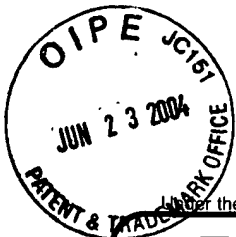
Firm or Individual name	Ward & Olivo 382 Springfield Ave. Summit, NJ 07901
Signature	<i>John A. Olivo, Jr.</i>
Date	6/18/04

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	Edward P. Bakos, Esq.		
Signature	<i>[Signature]</i>	Date	6/18/04

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PTO/SB/17 (10-03)

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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ ) 180.00

**Complete if Known**

Application Number	09/769,134
Filing Date	01/25/2001
First Named Inventor	Spencer A. Rathus
Examiner Name	Kim, Ahshik
Art Unit	2876
Attorney Docket No.	660-015

**METHOD OF PAYMENT** (check all that apply)☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☐ Deposit Account:Deposit  
Account  
Number  
Deposit  
Account  
Name

23-0420

WARD &amp; OLIVO

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$ ) 0

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

		Extra Claims	Fee from below	Fee Paid
Total Claims		-20** =	X	
Independent Claims		-3** =	X	
Multiple Dependent				

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ ) 0

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION** (continued)**3. ADDITIONAL FEES**

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
1051	130	2051	65	Surcharge - late filing fee or oath
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet
1053	130	1053	130	Non-English specification
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action
1251	110	2251	55	Extension for reply within first month
1252	420	2252	210	Extension for reply within second month
1253	950	2253	475	Extension for reply within third month
1254	1,480	2254	740	Extension for reply within fourth month
1255	2,010	2255	1,005	Extension for reply within fifth month
1401	330	2401	165	Notice of Appeal
1402	330	2402	165	Filing a brief in support of an appeal
1403	290	2403	145	Request for oral hearing
1451	1,510	1451	1,510	Petition to institute a public use proceeding
1452	110	2452	55	Petition to revive - unavoidable
1453	1,330	2453	665	Petition to revive - unintentional
1501	1,330	2501	665	Utility issue fee (or reissue)
1502	480	2502	240	Design issue fee
1503	640	2503	320	Plant issue fee
1460	130	1460	130	Petitions to the Commissioner
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)
1806	180	1806	180	Submission of Information Disclosure Stmt
8021	40	8021	40	Recording each patent assignment per property (times number of properties)
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))
1801	770	2801	385	Request for Continued Examination (RCE)
1802	900	1802	900	Request for expedited examination of a design application

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ ) 180.00

180.00

09/769,134  
180.00 DP00-000022  
09/769,134  
180.00 DP**SUBMITTED BY**

(Complete if applicable)

Name (Print/Type)	John W. Olivo, Jr.	Registration No. (Attorney/Agent)	35,634	Telephone	908.277.3333
Signature		Date	6/17/2004		

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	09/769,134
Filing Date	1/25/2001
First Named Inventor	Spencer A. Rathus
Art Unit	2876
Examiner Name	Kim, Ahshik
Attorney Docket Number	660-015

Sheet 1 of 8

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	1	US- 3,705,384	12-05-1972	Wahlberg	
	2	US- 3,735,350	05-22-1973	Lemelson	
	3	US- 3,976,995	08-24-1976	Sebestyen	
	4	US- 3,989,929	11-02-1976	Treiber	
	5	US- 4,117,542	09-26-1978	Klausner et al.	
	6	US- 4,283,621	08-11-1981	Pembroke	
	7	US- 4,418,278	11-29-1983	Mondschein	
	8	US- 4,492,164	01-08-1985	Cassanas et al.	
	9	US- 4,601,573	07-22-1986	Utsugi	
	10	US- 4,609,358	09-02-1986	Sangster	
	11	US- 4,659,213	04-21-1987	Matsumoto	
	12	US- 4,711,994	12-08-1987	Greenberg	
	13	US- 4,723,212	02-02-1988	Mindrum et al.	
	14	US- 4,793,813	12-27-1998	Bitzer et al.	
	15	US- 4,812,879	03-14-1989	Suzuki	
	16	US- 4,813,350	03-21-1989	Drillick	
	17	US- 4,820,167	04-11-1989	Nobles et al.	
	18	US- 4,825,058	04-25-1989	Poland	
	19	US- 4,839,507	06-13-1989	May	

**FOREIGN PATENT DOCUMENTS**

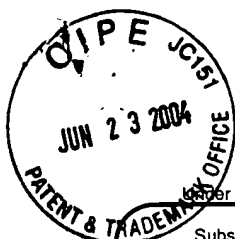
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	20	GB 2 109 600 A	06-02-1983	Brooke		
	21	JP 60-46,684	03-13-1985	Masaaki et al.		
	22	JP 62-98,334	05-07-1987	Yoshitomo, Abe		
	23	JP 362264752 A	11-17-1987	Suda, Koji		
	24	JP 363203045 A	08-22-1988	Asano, Eisuke		
	25	JP 363296560 A	12-02-1988	Mori, Naoki		

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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**Complete if Known**

Application Number	09/769,134
Filing Date	1/25/2001
First Named Inventor	Spencer A. Rathus
Art Unit	2876
Examiner Name	Kim, Ahshik
Attorney Docket Number	660-015

Sheet 2 of 8

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		Number-Kind Code <sup>2</sup> (if known)			
	26	US- 4,868,375	09-19-1989	Blanford	
	27	US- 4,897,865	01-30-1990	Canuel	
	28	US- 4,910,672	03-20-1990	Off et al.	
	29	US- 4,984,155	01-08-1991	Geier et al.	
	30	US- 4,992,824	02-12-1991	Plummer	
	31	US- 5,002,491	03-26-1991	Abrahamson et al.	
	32	US- 5,003,577	03-26-1991	Ertz et al.	
	33	US- 5,021,984	06-04-1991	Meade et al.	
	34	US- 5,027,196	06-25-1991	Ono et al.	
	35	US- 5,031,098	07-09-1991	Miller et al.	
	36	US- 5,080,399	01-14-1992	Olson	
	37	US- 5,083,271	01-21-1992	Thacher et al.	
	38	US- 5,108,052	04-28-1992	Malewicki et al.	
	39	US- 5,111,196	05-05-1992	Hunt	
	40	US- 5,119,188	06-02-1992	McCalley et al.	
	41	US- 5,126,547	06-30-1992	Norman, Jr.	
	42	US- 5,142,662	08-25-1992	Gump et al.	
	43	US- 5,148,297	09-15-1992	Ishii et al.	
	44	US- 5,151,687	09-29-1992	Younger	

**FOREIGN PATENT DOCUMENTS**

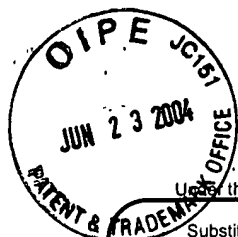
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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	45	EP 357899 A	03-14-1990	Schulz		
	46	JP 02103025 A	04-16-1990	Hirata		
	47	JP 02127792 A	05-16-1990	Oki, Shinji		
	48	JP 402279393 A	11-15-1990	Yuasa, Mitsutok		
	49	GB 2 232 119 A	12-05-1990	Webster et al.		
	50	JP 403060558 A	03-15-1991	Inaba, Satoshi		

Examiner  
SignatureDate  
Considered

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	51	US- 5,168,303	12-01-1992	Ikenoue et al.	
	52	US- 5,173,851	12-22-1992	Off et al.	
	53	US- 5,181,062	01-19-1993	Kazumi, Jiro	
	54	US- 5,185,857	02-09-1993	Rozmanith et al.	
	55	US- 5,204,813	04-20-1993	Samph et al.	
	56	US- 5,211,287	05-18-1993	Weisburn et al.	
	57	US- 5,222,624	06-29-1993	Burr	
	58	US- 5,235,509	08-10-1993	Mueller et al.	
	59	US- 5,237,156	08-17-1993	Konishi et al.	
	60	US- 5,243,174	09-07-1993	Veeneman et al.	
	61	US- 5,262,860	11-16-1993	Fitzpatrick et al.	
	62	US- 5,287,181	02-15-1994	Holman	
	63	US- 5,288,977	02-22-1994	Amendolia et al.	
	64	US- 5,295,064	03-15-1994	Malec et al.	
	65	US- 5,295,836	03-22-1994	Ryu et al.	
	66	US- 5,302,990	04-12-1994	Satoh et al.	
	67	US- 5,310,349	05-10-1994	Daniels et al.	
	68	US- 5,319,542	06-07-1994	King et al.	
	69	US- 5,353,219	10-04-1994	Mueller et al.	

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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	70	JP 03151263 A	06-27-1991	Osawa		
	71	JP 03174693 A	07-29-1991	Ashida et al.		
	72	JP 04-023,183	01-27-1992	Masahide		
	73	JP 404269048 A	09-25-1992	Watanabe		
	74	JP 06110913 A	04-22-1994	Watanabe		
	75	JP 406188962 A	07-08-1994	Nakamura, Teruo		

Examiner  
Signature

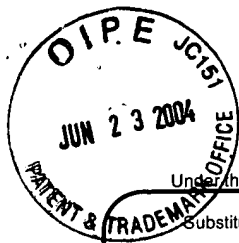
Date

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Sheet 4 of 8

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Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	76	US- 5,368,129	11-29-1994	Von Kohorn	
	77	US- 5,369,571	11-29-1994	Metts	
	78	US- 5,385,371	01-31-1995	Izawa	
	79	US- 5,385,475	01-31-1995	Sudman et al.	
	80	US- 5,397,410	03-14-1995	Handly	
	81	US- 5,401,944	03-28-1995	Bravman	
	82	US- 5,410,642	04-25-1995	Hakamatsuka et al.	
	83	US- 5,412,191	05-02-1995	Baitz et al.	
	84	US- 5,424,524	06-13-1995	Ruppert et al.	
	85	US- 5,451,998	09-19-1995	Hamrick	
	86	US- 5,452,379	09-19-1995	Poor	
	87	US- 5,459,304	10-17-1995	Eisenmann	
	88	US- 5,465,291	11-07-1995	Barrus et al.	
	89	US- 5,469,371	11-21-1995	Bass	
	90	US- 5,477,042	12-19-1995	Wang	
	91	US- 5,478,990	12-26-1995	Montanari et al.	
	92	US- 5,493,355	02-20-1996	Kazami	
	93	US- 5,500,681	03-19-1996	Jones	
	94	US- 5,505,494	04-09-1996	Belluci et al.	

**FOREIGN PATENT DOCUMENTS**

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	95	JP 6-233,159	08-19-1994	Tsutomu, Ozaka		
	96	JP 07056941 A	03-03-1995	Tanaka et al.		
	97	JP 7-64,169	03-10-1995	Masaru, Mase		
	98	GB 2 300 498 A	11-06-1996	McCauley		
	99	WO 98/03923	01-29-1998	Kraftsow et al		
	100	WO 98/06055	02-12-1998	Rapaport et al.		

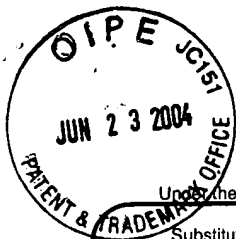
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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**Complete if Known**

Application Number	09/769,134
Filing Date	1/25/2001
First Named Inventor	Spencer A. Rathus
Art Unit	2876
Examiner Name	Kim, Ahshik
Attorney Docket Number	660-015

Sheet 5 of 8

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	101	US- 5,541,394	07-30-1996	Kouchi et al.	
	102	US- 5,551,011	08-27-1996	Danby et al.	
	103	US- 5,555,496	09-10-1996	Tackbary et al.	
	104	US- 5,559,714	09-24-1996	Banks et al.	
	105	US- 5,568,136	10-22-1996	Hochstein et al.	
	106	US- 5,570,291	10-29-1996	Dudle et al.	
	107	US- 5,578,797	11-26-1996	Hewitt et al.	
	108	US- 5,590,173	12-31-1996	Beasley	
	109	US- 5,612,868	03-18-1997	Off et al.	
	110	US- 5,615,123✓	03-25-1997	Davidson et al.	
	111	US- 5,640,002	06-17-1997	Ruppert et al.	
	112	US- 5,644,408	07-01-1997	Li et al.	
	113	US- 5,751,590	05-12-1998	Cannon et al.	
	114	US- 5,774,664	06-30-1998	Hidary et al.	
	115	US- 5,774,874	06-30-1998	Veeneman et al.	
	116	US- 5,778,181	07-07-1998	Hidary et al.	
	117	US- 5,797,330	08-25-1998	Li	
	118	US- 5,801,944	09-01-1998	Kara	
	119	US- 5,821,728	10-13-1998	Schwind	

**FOREIGN PATENT DOCUMENTS**

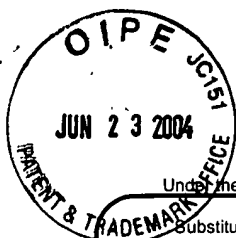
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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	120	JP 11-355,699	06-05-1998	Yukihiro, Sai		
	121	JP 10269326 A	10-09-1998	Nakamura et al.		
	122	JP 02000293455 A	04-09-1999	Yoshiro		
	123	JP 2000267966 A	09-29-2000	Masanori et al.		
	124	JP 2001/142971	05-25-2001	Atsushi		
	125	JP 02001265800 A	09-28-2001	Masamichi et al		

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**Complete if Known**

Application Number	09/769,134
Filing Date	1/25/2001
First Named Inventor	Spencer A. Rathus
Art Unit	2876
Examiner Name	Kim, Ahshik
Attorney Docket Number	660-015

Sheet 6 of 8

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		Number-Kind Code <sup>2</sup> (if known)			
	126	US- 5,857,156	01-05-1999	Anderson	
	127	US- 5,866,888	02-02-1999	Bravman et al.	
	128	US- 5,870,030	09-11-7627	Deluca et al.	
	129	US- 5,870,546	02-09-1999	Kirsch	
	130	US- 5,905,248	05-18-1999	Russell et al.	
	131	US- 5,913,210	06-15-1999	Call	
	132	US- 5,918,214	06-29-1999	Perkowski	
	133	US- 5,932,863	08-03-1999	Rathus et al.	
	134	US- 5,940,595	08-17-1999	Reber et al.	
	135	US- 5,948,040	09-07-1999	DeLorme et al.	
	136	US- 5,963,915	10-05-1999	Kirsch	
	137	US- 5,978,013	11-02-1999	Jones et al.	
	138	US- 5,978,648	11-02-1999	George et al.	
	139	US- 5,991,601	11-23-1999	Anderson	
	140	US- 5,992,752	11-30-1999	Wiltz, Sr. et al.	
	141	US- 5,995,105	11-30-1999	Reber et al.	
	142	US- 6,002,491	12-14-1999	Li et al.	
	143	US- 6,003,774	12-21-1999	Bard et al.	
	144	US- 6,064,832	05-16-2000	Sato et al.	

**FOREIGN PATENT DOCUMENTS**

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	145	US- 6,072,186	06-06-2000	Yokonuma et al.	
	146	US- 6,076,733	06-20-2000	Wilz, Sr. et al.	
	147	US- 6,085,124	07-04-2000	Choi	
	148	US- 6,085,976	07-11-2000	Sehr	
	149	US- 6,095,418	08-01-2000	Swartz et al.	
	150	US- 6,148,331	11-14-2000	Parry	
	151	US- 6,149,441	11-21-2000	Pellegrino et al.	
	152	US- 6,152,369	11-28-2000	Wilz, Sr. et al.	
	153	US- 6,154,738	11-28-2000	Call	
	154	US- 6,157,314	12-05-2000	Loftus	
	155	US- 6,164,534	12-26-2000	Rathus et al.	
	156	US- 6,199,048	03-06-2001	Hudetz et al.	
	157	US- 6,226,412	05-01-2001	Schwab	
	158	US- 6,246,337	06-12-2001	Rosenberg et al.	
	159	US- 6,269,336	07-31-2001	Ladd et al.	
	160	US- 6,269,342	07-31-2001	Brick et al.	
	161	US- 6,270,351	08-07-2001	Roper	
	162	US- 6,286,036	09-04-2001	Rhoads	
	163	US- 6,311,214	10-30-2001	Rhoads	

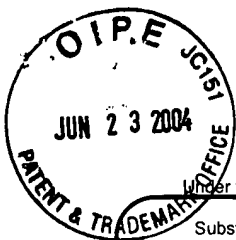
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Art Unit	2876
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	164	US- 6,313,732	11-06-2001	Deluca et al.	
	165	US- 6,314,457	11-06-2001	Schena et al.	
	166	US- 6,321,991	11-27-2001	Knowles	
	167	US- 6,321,992	11-27-2001	Knowles et al.	
	168	US- 6,330,244	12-11-2001	Swartz et al.	
	169	US- 6,331,864	12-18-2001	Coco et al.	
	170	US- 6,338,434	01-15-2002	Wilz et al.	
	171	US- 6,353,772	03-05-2002	Silverbrook	
	172	US- 6,373,551	04-16-2002	Manico et al.	
	173	US- 6,375,078	04-23-2002	Russell et al.	
	174	US- 6,381,582	04-30-2002	Walker et al.	
	175	US- 6,384,744	05-07-2002	Philyyaw et al.	
	176	US- 6,385,583	05-07-2002	Ladd et al.	
	177	US- 6,386,453	05-14-2002	Russell et al.	
	178	US- 2001/011276 A1	08-02-2001	Durst Jr. et al.	
	179	US- 2002/0084899 ✓	07-04-2002	Faria et al.	
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